

### Amendments to the Claims

Kindly amend claims 1, 2, 4-6, 10-12, 14-16, 20-23, 25-27 & 31 as set forth below. All pending claims are reproduced below, with changes in the amended claims shown by underlining (for added matter) and strikethrough/double brackets (for deleted matter).

1. (Currently Amended) A method of providing addresses to be used in a verification environment, said method comprising:

generating ~~one or more~~ addresses having one or more attributes associated therewith, wherein the generating of at least one address of the ~~one or more~~ generated addresses is based on at least one selection attribute to be used in selecting at least one address of the ~~one or more~~ generated addresses; [[and]]

employing a lookup table to filter the generated addresses with the one or more attributes into a saved list of addresses of particular type, the list of addresses of particular type comprising at least one address; and

selecting at least one address from the list of addresses of particular type to be forwarded to a component under test in a verification environment ~~from the one or more generated addresses~~, the selecting employing a filter specifying the at least one selection attribute that corresponds to at least one attribute of the one or more attributes, wherein said generating, said employing and said selecting are controlled to ensure at least one address is selected that satisfies the filter.

2. (Currently Amended) The method of claim 1, wherein the ~~generating comprises~~ generating list of addresses of particular type is a single list of the one or more addresses, and ~~wherein~~ the single list is searchable based on attributes, and wherein the lookup table is an address space class structure.

3. (Original) The method of claim 2, wherein the single list is subdividable into one or more groups based on attributes.

4. (Currently Amended) The method of claim 1, further comprising defining by a user one or more attributes and constraints to be employed by the generating, and wherein the generating of at least one address of the ~~one or more~~ generated addresses is based on one or more user defined constraints.

5. (Currently Amended) The method of claim 1, wherein the generating of at least one address of the ~~one or more~~ generated addresses comprises employing a user defined generator function.

6. (Currently Amended) The method of claim 1, further comprising defining by a user the one or more attributes associated with the ~~one or more~~ generated addresses.

7. (Original) The method of claim 1, wherein the one or more attributes and the at least one selection attribute specified in the filter are maintained in a same class.

8. (Original) The method of claim 1, wherein the selecting comprises further employing a user defined selector function to select at least one address.

9. (Original) The method of claim 1, wherein at least one attribute of the one or more attributes enables one or more generated addresses having the at least one attribute to be assigned to a particular requestor.

10. (Currently Amended) The method of claim 1, ~~wherein the selecting comprises creating a list of the at least one address satisfying the filter, and~~ further comprising dynamically changing the list of addresses of particular type, in response to a change to one or more attributes of the ~~one or more~~ generated addresses.

11. (Currently Amended) A system of providing addresses to be used in a verification environment, said system comprising:

means for generating ~~one or more~~ addresses having one or more attributes associated therewith, wherein the generating of at least one address of the ~~one or more~~ generated addresses is based on at least one selection attribute to be used in selecting at least one address of the ~~one or more~~ generated addresses; [[and]]

means for employing a lookup table to filter the generated addresses with the one or more attributes into a saved list of addresses of particular type, the list of addresses of particular type comprising at least one address; and

means for selecting at least one address from the list of addresses of particular type to be forwarded to a component under test in a verification environment ~~from the one or more generated addresses~~, the means for selecting employing a filter specifying the at least one selection attribute that corresponds to at least one attribute of the one or more attributes, and wherein the generating, the employing and the selecting are controlled to ensure at least one address is selected that satisfies the filter.

12. (Currently Amended) The system of claim 11, wherein the ~~means for generating comprises means for generating~~ list of addresses of particular type is a single list of the one or more addresses, wherein and the single list is searchable based on attributes, and wherein the lookup table is an address space class structure.

13. (Original) The system of claim 12, wherein the single list is subdividable into one or more groups based on attributes.

14. (Currently Amended) The system of claim 11, further comprising means for defining by a user one or more attributes and constraints to be employed by the generating, and wherein the generating of at least one address of the ~~one or more~~ generated addresses is based on one or more user defined constraints.

15. (Currently Amended) The system of claim 11, wherein the means for generating of at least one address of the ~~one or more~~ generated addresses comprises means for employing a user defined generator function.

16. (Currently Amended) The system of claim 11, further comprising means for defining by a user the one or more attributes associated with the ~~one or more~~ generated addresses.

17. (Original) The system of claim 11, wherein the one or more attributes and the at least one selection attribute specified in the filter are maintained in a same class.

18. (Original) The system of claim 11, wherein the means for selecting further comprises means for employing a user defined selector function to select at least one address.

19. (Original) The system of claim 11, wherein at least one attribute of the one or more attributes enables one or more generated addresses having the at least one attribute to be assigned to a particular requestor.

20. (Currently Amended) The system of claim 11, ~~wherein the means for selecting comprises means for creating a list of the at least one address satisfying the filter, and further comprising means for~~ dynamically changing the list of addresses of particular type, in response to a change to one or more attributes of the ~~one or more~~ generated addresses.

21. (Currently Amended) A system of providing addresses to be used in a verification environment, said system comprising:

a generator adapted to generate ~~one or more~~ addresses having one or more attributes associated therewith, wherein the generating of at least one address of the ~~one or more generated~~ addresses is based on at least one selection attribute to be used in selecting at least one address of the ~~one or more generated~~ addresses;  
[[and]]

a lookup table adapted to filter the generated addresses with the one or more attributes into a saved list of addresses of particular type, the list of addresses of particular type comprising at least one address; and

a selector adapted to select at least one address from the list of addresses of particular type to be forwarded to a component under test in a verification environment ~~from the one or more generated addresses~~, the selector employing a filter specifying the at least one selection attribute that corresponds to at least one attribute of the one or more attributes, wherein said generating, said filtering and said selecting are controlled to ensure at least one address is selected that satisfies the filter.

22. (Currently Amended) An article of manufacture comprising:

at least one computer usable medium having computer readable program code logic to provide addresses to be used in a verification environment, the computer readable program code logic comprising:

generate logic to generate ~~one or more~~ addresses having one or more attributes associated therewith, wherein the generating of at least one address of the ~~one or more~~ generated addresses is based on at least one selection attribute to be used in selecting at least one address of the ~~one or more~~ generated addresses; ~~[[and]]~~

filter logic employing a lookup table to filter the generated addresses with the one or more attributes into a saved list of addresses of particular type, the list of addresses of particular type comprising at least one address; and

select logic to select at least one address from the list of addresses of particular type to be forwarded to a component under test in a verification environment ~~from the one or more generated addresses~~, the select logic employing a filter specifying the at least one selection attribute that corresponds to at least one attribute of the one or more attributes, and wherein the generating, the employing and the selecting are controlled to ensure at least one address is selected that satisfies the filter.

23. (Currently Amended) The article of manufacture of claim 22, wherein the ~~generate logic comprises logic to generate~~ list of addresses of particular type is a single list of the one or more addresses, ~~wherein~~ and the single list is searchable based on attributes, and wherein the lookup table is an address space class structure.

24. (Original) The article of manufacture of claim 23, wherein the single list is subdividable into one or more groups based on attributes.

25. (Currently Amended) The article of manufacture of claim 22, further comprising defining by a user one or more attributes and constraints to be employed by the generate logic, and wherein the generating of at least one address of the ~~one or more~~ generated addresses is based on one or more user defined constraints.

26. (Currently Amended) The article of manufacture of claim 22, wherein the generating of at least one address of the ~~one or more~~ generated addresses comprises employ logic to employ a user defined generator function.

27. (Currently Amended) The article of manufacture of claim 22, further comprising define logic to define by a user the one or more attributes associated with the ~~one or more~~ generated addresses.

28. (Original) The article of manufacture of claim 22, wherein the one or more attributes and the at least one selection attribute specified in the filter are maintained in a same class.

29. (Original) The article of manufacture of claim 22, wherein the select logic further comprises employ logic to employ a user defined selector function to select at least one address.

30. (Original) The article of manufacture of claim 22, wherein at least one attribute of the one or more attributes enables one or more generated addresses having the at least one attribute to be assigned to a particular requestor.

31. (Currently Amended) The article of manufacture of claim 22, ~~wherein the select logic comprises create logic to create a list of the at least one address satisfying the filter, and~~ further comprising change logic to dynamically change the list of addresses of particular type, in response to a change to one or more attributes of the ~~one or more~~ generated addresses.

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